

### **REMARKS/ARGUMENTS**

Claims 1, 6, 11, 12, 14, and 21-26 are pending. Claims 6, 11, 12, and 14 stand withdrawn. Claims 2-5, 7-10, 13, 15-20, and 27-34 have been cancelled without prejudice or disclaimer.

The sole remaining rejection is the rejection of claims 1 and 21-26 under 35 U.S.C. § 103(a) over Weinstock (WO00/078145) in view of Edwards (WO02/067761). Applicants respectfully submit that, contrary to the Patent Office's reasons set forth on pages 2-7 of the Office Action, the claims are not obvious over the combined teachings of Weinstock and Edwards for at least the reasons that follow.

Briefly, Weinstock discloses sulfonamidobenzamide compounds for therapeutic applications and not for imaging applications. As a result, Weinstock's compounds contain no radiolabels anywhere in his molecules. And nowhere does Weinstock even hint of the incorporation of radiolabels into his compounds.

Edwards discloses *in vivo* imaging agents that target MSR that are not sulfonamidobenzamides. Further, Edwards discloses a variety of labels suitable for *in vivo* imaging application. The Patent Office notes that Edwards discloses radioisotopes such as  $^{123}\text{I}$  and  $^{18}\text{F}$  and concludes that this teaching of Edwards, combined with the teaching of Weinstock, leads, in an obvious manner, to the present invention. Applicants respectfully disagree.

Applicants respectfully note that Weinstock is completely devoid of any test data that would suggest which compound disclosed therein, if any, is promising to modify in order to improve upon its therapeutic activity and obtain a compound with better activity. For example, Weinstock does not disclose any particular compound having a particularly high potency as an MSR antagonist. Then, neither Weinstock nor Edwards provides a reason or motivation to perform the modification (i.e., incorporation of a covalently-bound  $^{123}\text{I}$  and  $^{18}\text{F}$  label at the  $\text{R}^2$ ,  $\text{R}^8$  and/or  $\text{R}^{12}$  positions of the molecule) that arrives at the claimed compound. The Patent Office therefore appears to have failed to establish the *prima facie* obviousness of the claimed compounds. See *Takeda Chemical Industries, Ltd. v. Alphapharm Pty., Ltd.*, 492 F.3d 1350, 1357 (Fed. Cir. 2007).

The Patent Office is respectfully reminded that the compound that appears to be the most promising to modify is not necessarily the compound which is the closest structurally to

the claimed compound. Indeed, choosing a compound from the prior art based on the structure of the claimed compounds as a starting point would constitute the use of impermissible hindsight.

The Patent Office also seems to have overlooked the teachings in Edwards that appear to teach away from the claimed invention. In the Office Action, the Patent Office states that Edwards, on page 48, lines 10-20 and page 49, lines 13-24, discloses radioisotopes such as  $^{123}\text{I}$  and  $^{18}\text{F}$ . But, the Patent Office appears to ignore the fact that all of Edwards' compounds are designed to chelate metals like  $^{60}\text{Cu}$ ,  $^{62}\text{Cu}$ ,  $^{64}\text{Cu}$ ,  $^{67}\text{Cu}$ ,  $^{99\text{m}}\text{Tc}$  or  $^{188}\text{Re}$ . *See, e.g.*, Edwards item [11] on page 35 and the claims. None of Edwards' compounds appear to be designed to carry the radioactive label covalently attached to the compound. Further, Edwards teaches, on the same passage on page 48 that the Patent Office cites, that "generator-produced radionuclides are considered ideal." Applicants respectfully point out that neither  $^{123}\text{I}$  nor  $^{18}\text{F}$  are generator-produced isotopes. Rather, they are cyclotron-produced isotopes. Also, the discussion on page 49, line 25 to page 50, line 30, appears to promote  $^{99\text{m}}\text{Tc}$  as an ideal radiolabel. Applicants submit that Edwards appears to be teaching away from the use of  $^{123}\text{I}$  and  $^{18}\text{F}$  labels in a compound and, instead, appears to be teaching toward the use of chelates, specifically  $^{99\text{m}}\text{Tc}$  chelates. In sum, combining the teachings of Weinstock, who focuses on non-radiolabeled compounds, with the teachings of Edwards, who focuses on chelates of radioactive isotopes and not on compounds that have the radioactive isotope covalently bound to the compounds, does not lead in an obvious manner to the presently-claimed compounds.

Even if Edwards promoted the use of  $^{123}\text{I}$  or  $^{18}\text{F}$ , he certainly would not suggest or otherwise contemplate making compounds, such as those claimed, where the  $^{123}\text{I}$  or  $^{18}\text{F}$  are located at the  $\text{R}^2$ ,  $\text{R}^8$  and/or  $\text{R}^{12}$  positions of the molecule. Neither Weinstock nor Edwards provides a reason why one of ordinary skill in the art would incorporate the  $^{123}\text{I}$  or  $^{18}\text{F}$  at the  $\text{R}^2$ ,  $\text{R}^8$  and/or  $\text{R}^{12}$  positions.

Applicants respectfully submit that the reason why one would combine Weinstock and Edwards is found only in Applicants' own disclosure and claims. In other words, the only way that one can arrive at the claimed invention is by engaging in impermissible hindsight reconstruction. Reconsideration and withdrawal of the rejection of claims 1 and the claims that depend therefrom are therefore respectfully requested.

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Applicants conclude, on the basis of the above argumentation, that the pending claims are patentable and requests favorable consideration.

The Examiner is invited to telephone the undersigned in order to resolve any issues that might arise and to promote the efficient examination of the current application.

Respectfully submitted,

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